

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An electric discharge machining method for forming a cavity, comprising the steps of:
 - setting a removal surface area (S);
 - setting a dimension of material to be removed (d) from a workpiece and machining conditions;
 - setting a plurality of storing, utilizing a storage device, a database correlating a removal volume rate (Vm) with machining conditions;
 - obtaining a removal volume (V) corresponding to a volume of material to be removed from a workpiece based on the removal surface area (S) and the dimension of material to be removed (d);
 - obtaining a removal volume rate (Vm) corresponding to the set plurality of machining conditions;
 - determining extracting, utilizing a calculating device, the removal volume rate (Vm) corresponding to the set machining conditions from the storage device, and calculating, utilizing the calculating device, a machining time (T) based on the removal surface area (S), volume (V) the dimension of material to be removed (d) and the removal volume rate (Vm); and
 - starting electric discharge machining of the workpiece in accordance with the set plurality of machining conditions; and
 - completing electric discharge machining of the workpiece with increase in dimension of the cavity when the machining time (T) has elapsed from the starting of electric discharge machining.

2-6. (Canceled)